

## CLAIMS:

1. A video transmission system for transmitting an output video signal over a communication channel on the basis of a group of input video signals, said system comprising a first group of coding means for supplying a coded video signal from each input video signal,

5 characterized in that it also comprises:

- a second group of coding means for supplying a sub-sampled video signal from each input video signal,
- association means for associating with each sub-sampled video signal a descriptor characterizing the corresponding input video signal,
- 10 multiplexing means for multiplexing the group of said coded video signals with the group of said sub-sampled video signals associated with their descriptors, this multiplexing operation supplying said output video signal.

2. A video transmission system for transmitting an output video signal over a communication channel on the basis of an input video signal, said input video signal resulting from the multiplexing of a group of coded video signals and said system comprising means for demultiplexing so as to generate the said coded video signals, characterized in that it also comprises:

- 20 transcoding means for supplying a sub-sampled video signal from each coded video signal,
- association means for associating with each sub-sampled video signal a descriptor characterizing the corresponding coded video signal,
- multiplexing means for multiplexing said input video signal with the group of said sub-sampled video signals associated with their descriptors, this multiplexing operation 25 supplying said output video signal.

3. A video processing system designed for receiving via a communication channel an input video signal resulting from the multiplexing of a group of coded video signals, said system comprising demultiplexing means for generating said coded video

signals and decoding means for decoding said coded video signals and generating decoded video signals that can be displayed on a screen, characterized in that it also comprises:

- means for receiving an auxiliary signal resulting from the multiplexing of a group of sub-sampled video signals, each sub-sampled video signal resulting from the sub-sampling of a coded video signal, a data descriptor being associated with each sub-sampled signal in order to characterize it by means of a group of fields,
- means for creating a database in which to store fields of said data descriptors and to identify a sub-sampled video signal by means of a request referring to a group of fields, and
- means for creating a mosaic from a limited group of sub-sampled video signals selected from the said group of sub-sampled video signals, said selected sub-sampled video signals corresponding to the sub-sampled video signals where the fields of the associated descriptors are the result of a user request sent to said database.

4. A video processing system as claimed in claim 3, characterized in that the means for creating said mosaic include:

- means for demultiplexing the said auxiliary signal in order to generate the said selected sub-sampled video signals,
- means for decoding in order to generate a decoded sub-sampled video signal from each selected sub-sampled video signal,
- video composition means for composing said mosaic from decoded sub-sampled video signals, said mosaic being capable of being displayed on said screen.

5. A video processing system as claimed in claim 4, characterized in that it comprises a request generator for generating said user request, said user request originating from the selection by a user of a group of fields from a menu displayed on the said screen.

6. A video processing system as claimed in claim 4, characterised in that that the user request originates from the content of a user profile comprising a group of fields.

7. A video processing system as claimed in claim 4, characterized in that it comprises graphical selection means for selecting said limited group of sub-sampled video signals from said group of sub-sampled video signals displayed on said screen.

8. A video processing system as claimed in claim 5 to 7, characterized in that it comprises means for selecting a sub-sampled video signal composing said mosaic displayed in order to allow the full-screen display of said corresponding decoded video signal.

9. A receiver for a television set comprising a video processing system as claimed in claim 3.

10. A digital signal composed of a group of primary video signals coded in accordance with the MPEG-2 standard, characterized in that it also comprises a group of secondary video signals coded in accordance with the MPEG-4 standard, each secondary video signal being obtained successively by means of sub-sampling of a primary video signal and subsequent encoding in accordance with the MPEG-4 standard, each MPEG-4 video signal being associated with a descriptor characterizing the corresponding primary video signal.

11. A video transmission procedure for transmitting an output video signal over a communication channel from a group of input video signals, said procedure comprising a first coding step in order to supply a coded video signal from each input video signal, characterized in that it also comprises:

- a second coding step for supplying a sub-sampled video signal from each input video signal,
- an association step for associating with each sub-sampled video signal a descriptor characterizing the corresponding input video signal,
- a multiplexing step for multiplexing the group of said coded video signals with the group of said sub-sampled video signals associated with their additional data, this multiplexing operation supplying said output video signal.

12. A video transmission procedure for transmitting an output video signal over a communication channel from an input video signal, said input video signal resulting from the multiplexing of a group of coded video signals, said system comprising a demultiplexing step in order to generate said coded video signals, characterized in that it also comprises:

- a transcoding step for supplying a sub-sampled video signal from each coded video signal,

- an association step for associating with each sub-sampled video signal a descriptor characterizing the corresponding coded video signal,

5 - a multiplexing step for multiplexing said input video signal with the group of said sub-sampled video signals associated with their descriptors, this multiplexing operation supplying said output video signal.

13. A video processing procedure designed for receiving an input video signal  
10 resulting from the multiplexing of a group of coded video signals, said procedure comprising a demultiplexing step for generating the said coded video signals and a decoding step for decoding said coded video signals and generating decoded video signals that can be displayed on a screen,

characterized in that it also comprises:

15 - a step for receiving an auxiliary signal resulting from the multiplexing of a group of sub-sampled video signals, each sub-sampled video signal resulting from the sub-sampling of a coded video signal, a data descriptor being associated with each sub-sampled signal in order to characterize it by means of a group of fields,

- a step for creating a database in which to store the fields of said data  
20 descriptors and identify a sub-sampled video signal by means of a request referring to a group of fields,

- a step for creating a mosaic from a limited group of sub-sampled video signals  
selected from said group of sub-sampled video signals, said selected sub-sampled video  
signals corresponding to those sub-sampled video signals for which the fields of the  
25 associated descriptors are the result of a user request sent to said database.

14. A computer program product for a video transmission system, said computer  
program comprising a sequence of program code instructions for executing the steps of the  
procedure as claimed in claim 11 if said program is executed by a signal processor  
30 implemented in said video transmission system.

15. A computer program product for a video transmission system, said computer  
program comprising a sequence of program code instructions for executing the steps of the

procedure as claimed in claim 12 if said program is executed by a signal processor implemented in said video transmission system.

16. A computer program product for a video processing system, said computer

5 program comprising a sequence of program code instructions for executing the steps of the procedure as claimed in claim 13 if said program is executed by a signal processor implemented in said video processing system.